

Appl. No. 10/605,880
Amtd. dated August 29, 2005
Reply to Office Action of February 28, 2005

AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 4, 9, 10, 16, 27 and 35 as follows:

LISTING OF CLAIMS:

1. (Currently Amended) A supercharged motorcycle comprising:

a front wheel;

a rear wheel longitudinally spaced from said front wheel;

an engine including a rotatable crankshaft generally positioned between said wheels,

said engine presenting opposite left and right sides corresponding to sides of the motorcycle,

said engine further including an air intake; and

an air induction system operable to deliver compressed induction fluid to the engine air intake,

said air induction system including a supercharger adjacent one of the sides of the engine and

a drive assembly drivingly connecting the supercharger relative to the crankshaft,

said supercharger being longitudinally spaced forward of said crankshaft to define a fore area

therebetween with the drive assembly spanning the fore area,

said air induction system further including a intake fluid line connected between the
supercharger and the air intake,

said intake fluid line projecting forwardly from the supercharger and extending forwardly of
the engine and across the front of the engine to the engine side opposite the

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supercharger for transferring the compressed induction fluid from the supercharger to the air intake.

2. (Original) The motorcycle as claimed in claim 1, said supercharger comprising a centrifugal supercharger including a self-contained dedicated lubrication system in which all of the lubricant is contained entirely within the supercharger.

3. (Original) The motorcycle as claimed in claim 1; and a drive train drivingly interconnecting said crankshaft and said rear wheel and including a rotatable driven element and an endless element drivingly interconnecting said crankshaft and said driven element, said driven element being aftwardly and longitudinally spaced from said crankshaft to thereby define an aft area between said crankshaft and said driven element.

4. (Currently Amended) ~~The motorcycle as claimed in claim 3, A supercharged motorcycle comprising:~~

a front wheel;

a rear wheel longitudinally spaced from said front wheel;

an engine including a rotatable crankshaft generally positioned between said wheels; and

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an air induction system operable to deliver compressed induction fluid to the engine,
said air induction system including a supercharger and a drive assembly drivingly connecting
the supercharger relative to the crankshaft,
said supercharger being longitudinally spaced forward of said crankshaft to define a fore area
therebetween with the drive assembly spanning the fore area,
a drive train drivingly interconnecting said crankshaft and said rear wheel and including a
rotatable driven element and an endless element drivingly interconnecting said
crankshaft and said driven element,
said driven element being aftwardly and longitudinally spaced from said crankshaft to
thereby define an aft area between said crankshaft and said driven element,
said drive assembly including a foremost rotatable supercharger-driving component
longitudinally spaced from said crankshaft and positioned in or forward of the fore
area, and an aftmost rotatable power take-off component longitudinally spaced from
said crankshaft and positioned in or behind the aft area so that the drive assembly
extends into and spans between the fore and aft areas.

5. (Original) The motorcycle as claimed in claim 4,
said power take-off component drivingly intermeshing with one of said endless and driven
elements.

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6. (Withdrawn) The motorcycle as claimed in claim 5,

said one of said endless and driven elements being said driven element,
said driven element comprising a toothed flywheel.

7. (Original) The motorcycle as claimed in claim 4,

said drive assembly including an endless drive element drivingly entraining said rotatable
components.

8. (Original) The motorcycle as claimed in claim 1; and

a side cover at least partially enclosing said crankshaft,
said air induction system including a generally flat support bracket supporting said
supercharger on said side cover.

9. (Currently Amended) The motorcycle as claimed in claim 1,

said air induction system including an intercooler fluidly coupled between the supercharger
and engine and operable to cool the compressed induction fluid positioned
downstream of said supercharger and upstream of said engine.

10. (Currently Amended) A motorcycle for mounted operation by a rider, wherein
the motorcycle is retrofit with an aftermarket supercharging system, said motorcycle comprising:

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a chassis operable to be mounted by the rider in a normal operating position and including a front wheel, a rear wheel longitudinally spaced from said front wheel, a frame supported between the wheels, a gas tank spaced between said wheels, a seat positioned aft of the gas tank and configured to support the rider in the normal operating position, and a pair of foot supports spaced on either side of the frame and positioned generally below the gas tank and the seat;

an engine including a rotatable crankshaft generally positioned between said wheels, said chassis and engine cooperating to define a pair of original leg-receiving areas spaced on either side of the chassis and each being operable to receive a corresponding leg of the rider when the rider is mounted on the seat in the normal operating position,

each of said foot supports presenting an innermost edge cooperating with a chassis contact point to define a fore-and-aft extending plane.

each of said original leg-receiving areas being generally defined by a curvilinear leg path projecting along the corresponding plane and extending between said seat and a respective one of said foot supports, wherein each leg path that mimics the corresponding rider's leg when the rider is mounted on the seat in the normal operating position; and

an air induction system operable to deliver compressed induction fluid to the engine and including a supercharger and a drive assembly drivingly connecting the supercharger relative to the engine to supply power from the engine to the supercharger,

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said entire air induction system being positioned outside of the original leg-receiving areas with at least a portion of the air induction system extending between said leg paths, at least a portion of the supercharger being spaced laterally outward from the respective plane and forward of the leg-receiving area so the at least a portion of the supercharger is in front of the leg-receiving area.

11. (Original) The motorcycle as claimed in claim 10, said at least a portion of the air induction system being positioned entirely inboard of the leg paths.

12. (Original) The motorcycle as claimed in claim 10, one of said frame and gas tank defining a pair of laterally outermost rider-engaging contact points oppositely spaced on either side of the chassis that engage the rider's legs when the rider is mounted on the seat in the normal operating position, each of said contact points being positioned along a respective one of said leg paths, each of said foot supports presenting a foot-supporting surface for supporting a foot of the rider when the rider is mounted on the seat in the normal operating position, each of said foot-supporting surfaces defining an outermost edge laterally spaced from said frame and an innermost edge adjacent said frame,

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each of said innermost edges lying in a common plane with a respective one of said contact points,

each of said leg paths lying in a respective one of said common planes.

13. (Original) The motorcycle as claimed in claim 12; and
a drive train drivingly interconnecting said crankshaft and said rear wheel and including a
rotatable driven element and an endless element drivingly interconnecting said
crankshaft and said driven element,
said supercharger including a rotatable impeller operable to compress induction fluid for the
engine when rotated,
said drive assembly drivingly interconnecting said rotatable impeller and one of said driven
and endless elements,
said drive assembly being positioned entirely inboard of said common planes so as to not
engage the rider when the rider is mounted on the seat in the normal operating
position.

14. (Original) The motorcycle as claimed in claim 13,
said supercharger being forwardly and longitudinally spaced from said crankshaft to thereby
define a fore area therebetween.

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15. (Original) The motorcycle as claimed in claim 14,

said driven element being aftwardly and longitudinally spaced from said crankshaft to thereby define an aft area therebetween.

16. (Currently Amended) ~~The motorcycle as claimed in claim 15,~~ A supercharged motorcycle for mounted operation by a rider, said motorcycle comprising:

a chassis operable to be mounted by the rider in a normal operating position and including a front wheel, a rear wheel longitudinally spaced from said front wheel, a frame supported between the wheels, a gas tank spaced between said wheels, a seat positioned aft of the gas tank and configured to support the rider in the normal operating position, and a pair of foot supports spaced on either side of the frame and positioned generally below the gas tank and the seat;

an engine including a rotatable crankshaft generally positioned between said wheels, said chassis and engine cooperating to define a pair of leg-receiving areas spaced on either side of the chassis and each being operable to receive a corresponding leg of the rider when the rider is mounted on the seat in the normal operating position,

each of said leg-receiving areas being generally defined by a curvilinear leg path extending between said seat and a respective one of said foot supports that mimics the corresponding rider's leg when the rider is mounted on the seat in the normal operating position; and

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an air induction system operable to deliver compressed induction fluid to the engine and
including a supercharger and a drive assembly drivingly connecting the supercharger
relative to the engine to supply power from the engine to the supercharger,
said entire air induction system being positioned outside of the leg-receiving areas with at
least a portion of the air induction system extending between said leg paths.
one of said frame and gas tank defining a pair of laterally outermost rider-engaging contact
points oppositely spaced on either side of the chassis that engage the rider's legs when
the rider is mounted on the seat in the normal operating position,
each of said contact points being positioned along a respective one of said leg paths,
each of said foot supports presenting a foot-supporting surface for supporting a foot of the
rider when the rider is mounted on the seat in the normal operating position,
each of said foot-supporting surfaces defining an outermost edge laterally spaced from said
frame and an innermost edge adjacent said frame,
each of said innermost edges lying in a common plane with a respective one of said contact
points,
each of said leg paths lying in a respective one of said common planes.
a drive train drivingly interconnecting said crankshaft and said rear wheel and including a
rotatable driven element and an endless element drivingly interconnecting said
crankshaft and said driven element,

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said supercharger including a rotatable impeller operable to compress induction fluid for the engine when rotated,

said drive assembly drivingly interconnecting said rotatable impeller and one of said driven and endless elements,

said drive assembly being positioned entirely inboard of said common planes so as to not engage the rider when the rider is mounted on the seat in the normal operating position.

said supercharger being forwardly and longitudinally spaced from said crankshaft to thereby define a fore area therebetween.

said driven element being aftwardly and longitudinally spaced from said crankshaft to thereby define an aft area therebetween,

said drive assembly including a foremost rotatable supercharger-driving component longitudinally spaced from said crankshaft and positioned in or forward of the fore area, and an aftmost rotatable power take-off component longitudinally spaced from said crankshaft and positioned in or behind the aft area so that the drive assembly extends into and spans between the fore and aft areas.

17. (Original) The motorcycle as claimed in claim 16,
said power take-off component drivingly intermeshing with one of said endless and driven elements.

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18. (Withdrawn) The motorcycle as claimed in claim 17,
said one of said endless and driven elements being said driven element,
said driven element comprising a toothed flywheel.

19. (Original) The motorcycle as claimed in claim 16,
said drive assembly including an endless drive element drivingly entraining said rotatable
components.

20. (Original) The motorcycle as claimed in claim 10; and
a side cover at least partially enclosing said crankshaft,
said air induction system including a generally flat support bracket supporting said
supercharger on said side cover,
at least a portion of said support bracket extending between said leg paths with said at least
a portion of said support bracket being positioned entirely inboard of the leg paths.

21-26. (Canceled)

27. (Currently Amended) A supercharged motorcycle comprising:
a chassis operable to be mounted by a rider and including a front wheel and a rear wheel
longitudinally spaced from said front wheel;

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an engine including a rotatable crankshaft generally positioned between said wheels,
said engine presenting opposite left and right sides corresponding to sides of the motorcycle,
said engine further including an air intake;
a drive train drivingly interconnecting said crankshaft and said rear wheel and including a
rotatable driven element longitudinally spaced from said crankshaft and an endless
element drivingly interconnecting said crankshaft and said driven element; and
an air induction system operable to deliver compressed induction fluid to the engine air
intake and including a supercharger adjacent one of the sides of the engine and a
drive assembly,
said drive assembly drivingly interconnecting said drive train and said supercharger and
including an indirect power take-off component drivingly engaging one of said driven
and endless elements,
said air induction system further including an intake fluid line connected between the
supercharger and the air intake,
said intake fluid line projecting forwardly from the supercharger and extending forwardly of
the engine and across the front of the engine to the engine side opposite the
supercharger for transferring the compressed induction fluid from the supercharger
to the air intake.

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28. (Withdrawn) The motorcycle as claimed in claim 27,
said one of said driven and endless elements being said driven element,
said driven element comprising a flywheel.

29. (Original) The motorcycle as claimed in claim 27,
one of said driven and endless elements being said endless element.

30. (Original) The motorcycle as claimed in claim 29,
said endless element comprising a cogged belt.

31. (Withdrawn) The motorcycle as claimed in claim 29,
said endless element comprising a chain.

32. (Original) The motorcycle as claimed in claim 27,
said supercharger including a rotatable impeller that compresses induction fluid for the
engine when rotated.

33. (Original) The motorcycle as claimed in claim 32,
said supercharger being forwardly and longitudinally spaced from said crankshaft to thereby
define a fore area therebetween.

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34. (Original) The motorcycle as claimed in claim 33,
said driven element being aftwardly and longitudinally spaced from said crankshaft to
thereby define an aft area therebetween.

35. (Currently Amended) ~~The motorcycle as claimed in claim 34;~~ A supercharged
motorcycle comprising:

a chassis operable to be mounted by a rider and including a front wheel and a rear wheel
longitudinally spaced from said front wheel;
an engine including a rotatable crankshaft generally positioned between said wheels;
a drive train drivingly interconnecting said crankshaft and said rear wheel and including a
rotatable driven element longitudinally spaced from said crankshaft and an endless
element drivingly interconnecting said crankshaft and said driven element; and
an air induction system operable to deliver compressed induction fluid to the engine and
including a supercharger and a drive assembly,
said drive assembly drivingly interconnecting said drive train and said supercharger and
including an indirect power take-off component drivingly engaging one of said driven
and endless elements,
said supercharger including a rotatable impeller that compresses induction fluid for the
engine when rotated,

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said supercharger being forwardly and longitudinally spaced from said crankshaft to thereby define a fore area therebetween,

said driven element being aftwardly and longitudinally spaced from said crankshaft to thereby define an aft area therebetween,

said drive assembly including a foremost rotatable supercharger-driving component longitudinally spaced from said crankshaft and positioned in or forward of the fore area,

said power take-off component being longitudinally spaced from said crankshaft and positioned in or behind the aft area so that the drive assembly extends into and spans between the fore and aft areas.

36. (Original) The motorcycle as claimed in claim 27,

said drive assembly including a rotatable supercharger-driving component spaced from said power take-off component,

said drive assembly further including an endless drive element drivingly entraining said supercharger-driving and power take-off components.

37. (Original) The motorcycle as claimed in claim 36; and

a side cover at least partially enclosing said crankshaft,

said power take-off component being rotatably supported on said side cover.

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38. (Original) The motorcycle as claimed in claim 37,
said air induction system including a generally flat support bracket supporting said
supercharger on said side cover.

39. (Original) The motorcycle as claimed in claim 38,
said air induction system including an intercooler positioned downstream of said
supercharger and upstream of said engine.

40-59. (Canceled)

60. (New) A supercharged motorcycle comprising:
a front wheel;
a rear wheel longitudinally spaced from said front wheel;
an engine including a rotatable crankshaft and an air intake,
said engine presenting opposite left and right sides corresponding to sides of the motorcycle;
and
an air induction system operable to deliver compressed induction fluid to the air intake,
said air induction system including a supercharger adjacent one of the sides of the engine and
a drive assembly drivingly connecting the supercharger relative to the crankshaft,

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said air induction system further including an intake fluid line connected between the supercharger and the air intake,

said intake fluid line projecting forwardly from the supercharger and extending forwardly of the engine and across the front of the engine to the engine side opposite the supercharger for transferring the compressed induction fluid from the supercharger to the air intake.

61. (New) The motorcycle as claimed in claim 60,
a drive train drivingly interconnecting said crankshaft and said rear wheel and including a rotatable driven element longitudinally spaced from said crankshaft and an endless element drivingly interconnecting said crankshaft and said driven element,
said drive assembly drivingly interconnecting said drive train and said supercharger and including an indirect power take-off component drivingly engaging one of said driven and endless elements

62. (New) The motorcycle as claimed in claim 61,
one of said driven and endless elements being said endless element.

63. (New) The motorcycle as claimed in claim 62,
said endless element comprising a cogged belt.

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64. (New) The motorcycle as claimed in claim 61,
said supercharger including a rotatable impeller that compresses induction fluid for the
engine when rotated.

65. (New) The motorcycle as claimed in claim 64,
said supercharger being forwardly and longitudinally spaced from said crankshaft to thereby
define a fore area therebetween.

66. (New) The motorcycle as claimed in claim 65,
said driven element being aftwardly and longitudinally spaced from said crankshaft to
thereby define an aft area therebetween.

67. (New) The motorcycle as claimed in claim 66,
said drive assembly including a foremost rotatable supercharger-driving component
longitudinally spaced from said crankshaft and positioned in or forward of the fore
area,
said power take-off component being longitudinally spaced from said crankshaft and
positioned in or behind the aft area so that the drive assembly extends into and spans
between the fore and aft areas.

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68. (New) The motorcycle as claimed in claim 61,
said drive assembly including a rotatable supercharger-driving component spaced from said
power take-off component,
said drive assembly further including an endless drive element drivingly entraining said
supercharger-driving and power take-off components.

69. (New) The motorcycle as claimed in claim 68; and
a side cover at least partially enclosing said crankshaft,
said power take-off component being rotatably supported on said side cover.

70. (New) The motorcycle as claimed in claim 69,
said air induction system including a generally flat support bracket supporting said
supercharger on said side cover.

71. (New) The motorcycle as claimed in claim 70,
said air induction system including an intercooler fluidly coupled between the supercharger
and engine and operable to cool the compressed induction fluid.

72. (New) The motorcycle as claimed in claim 60,
said air induction system including an intercooler for cooling the compressed induction fluid,

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at least a portion of the intercooler being forward of the engine.

73. (New) The motorcycle as claimed in claim 60,
said rotatable crankshaft situated on a first side of the motorcycle.

74. (New) The motorcycle as claimed in claim 73,
said air intake adjacent a second side of the motorcycle opposite the first side.

75. (New) The motorcycle as claimed in claim 74,
said supercharger being positioned on the first side of the motorcycle.

76. (New) The motorcycle as claimed in claim 1,
said air induction system including an intercooler for cooling the compressed induction fluid,
at least a portion of the intercooler being forward of the engine.

77. (New) The motorcycle as claimed in claim 1,
said rotatable crankshaft situated on a first side of the motorcycle.

78. (New) The motorcycle as claimed in claim 77,
said air intake adjacent a second side of the motorcycle opposite the first side.

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79. (New) The motorcycle as claimed in claim 78,
said supercharger being positioned on the first side of the motorcycle.

80. (New) The motorcycle as claimed in claim 27,
said air induction system including an intercooler for cooling the compressed induction fluid,
at least a portion of the intercooler being forward of the engine.

81. (New) The motorcycle as claimed in claim 27,
said rotatable crankshaft situated on a first side of the motorcycle.

82. (New) The motorcycle as claimed in claim 81,
said air intake adjacent a second side of the motorcycle opposite the first side.

83. (New) The motorcycle as claimed in claim 82,
said supercharger being positioned on the first side of the motorcycle.

84. (New) In a motorcycle retrofit with an improved aftermarket air induction system, wherein the motorcycle includes-
a chassis operable to be mounted by the rider in a normal operating position and including
a front wheel, a rear wheel longitudinally spaced from the front wheel, a frame

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supported between the wheels, a gas tank spaced between the wheels, a seat positioned aft of the gas tank and configured to support the rider in the normal operating position, and a pair of foot supports spaced on either side of the frame and positioned generally below the gas tank and the seat,

an engine including a rotatable crankshaft generally positioned between the wheels, and a pair of original leg-receiving areas cooperatively defined by the chassis and engine prior to the motorcycle being retrofit with the air induction system,

said original leg-receiving areas being on either side of the chassis and each being operable to receive a corresponding leg of the rider when the rider is mounted on the seat in the normal operating position,

each of said original leg-receiving areas being generally defined by a curvilinear leg path extending between said seat and a respective one of said foot supports that mimics the corresponding rider's leg when the rider is mounted on the seat in the normal operating position,

the improved air induction system comprising:

a supercharger operable to compress induction fluid for delivery to the engine; and

a drive assembly drivingly connecting the supercharger relative to the engine to supply power from the engine to the supercharger,

said entire air induction system being positioned outside of the original leg-receiving areas with at least a portion of the air induction system extending between

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said leg paths, so as to avoid interfering with the normal operating position of the rider.

85. (New) The motorcycle as claimed in claim 84,
said original leg-receiving areas being spaced laterally inboard of an outermost margin of the adjacent foot support, with at least a portion of the supercharger being spaced laterally outboard of a portion of the original leg-receiving area.

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